

Kentucky Department of Education
Science Adoption 2008-2014

ISBN - 9780618966028		Publisher - Houghton Mifflin Company
Kentucky Experience Science Student Book		
Type - P1	Author - Badders, Carnine, Jeanpierre, Feliciani, Sumners, Valentino	
Copyright - 2009	Edition - 1st	Readability - 4.84 SSR Spache
Course - Elementary Science		Grade(s) - 5
Teacher Edition ISBN if applicable		9780618965762

Overall Recommendation:

☒ **Recommended as Basal**

Overall Strengths, Weaknesses, Comments:

*While this basal provides only moderate evidence to support our standards, we found moderate coverage of the seven big ideas.
 *We suggest that, should schools choose to adopt this text, they use supplemental materials to fill in where this series is weak.
 *Schools need to be aware that many of the ancillary materials would be necessary for successful implementation of this program.
 *We found minimal technology connections, as well as support for diverse learners.

CRITERIA
This basal resource ...

A. Encompasses KY Content Standards & Grade Level Expectations

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

☐ Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 7 Big Ideas of science to the following extent:

- | | |
|---|---|
| a) Structure and Transformation of Matter | <input checked="" type="checkbox"/> Strong <input type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
| b) Motion and Forces | <input type="checkbox"/> Strong <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
| c) The Earth and the Universe | <input type="checkbox"/> Strong <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
| d) Unity and Diversity | <input checked="" type="checkbox"/> Strong <input type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
| e) Biological Change | <input type="checkbox"/> Strong <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
| f) Energy Transformation | <input type="checkbox"/> Strong <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
| g) Interdependence | <input checked="" type="checkbox"/> Strong <input type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |

2) Addresses content-specific enduring understandings from the related Program of Studies standards.

☐ Strong ☒ Moderate ☐ Little ☐ N/A

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3) **Addresses content-specific skills and concepts from the related Program of Studies standards.** ☐ Strong ☒ Moderate ☐ Little ☐ N/A

4) **Content addressed is current, relevant and non-trivial** ☐ Strong ☒ Moderate ☐ Little ☐ N/A

5) **Provides opportunities for critical thinking/reasoning** ☐ Strong ☒ Moderate ☐ Little ☐ N/A

6) **Strengths, Weaknesses, Comments:**

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

*Big Idea 1 is covered in the student text and with investigations on solubility and boiling point. Correlated (not congruent) material is also included in the student text on things such as the periodic table, classifications within the table (i.e. noble gases), compounds and chemical formulas.

*Big Idea 2 is not covered at DOK 3 level. Investigations involve observing, predicting and measuring, but little interpretation of data.

*Big Idea 3 has really no coverage of water cycle and circulation of water through the earth's crust in the student text, however weak investigations are offered. The correlations section of the teacher edition lists pages in the reader that align with 2.3.1, which are discussing earth's renewable and nonrenewable resources, fossil fuel formation, etc., not water circulation through the crust and atmosphere.

The student text does not cover the interaction of water with soil at all. Again, a correlation is listed in the teacher's edition. However, the pages listed as correlating with 2.3.2 (interaction of water with Earth materials and results of those interactions) are about using resources wisely, the 3 R's, landfills, and placement of earth resources. Weather concepts are adequately covered with investigations and text. Earth's atmosphere is covered, but would need the teacher to supplement to reach a DOK 3 level of understanding. Coverage of space content is adequate.

*Materials in the student kit (slides of various types of cells) are critical to doing the investigations for Big Idea 4. This material kit is available for additional purchase.

*Content referenced in Big Idea 5 covers biological processes and structures more thoroughly than biological change. The content referenced in the big idea correlation section of the teacher's manual relates more closely to Unity and Diversity and Interdependence than it does to Biological Change.

*Content covers kinetic and potential energy in the student text, but there are no investigations to match this content at all. Again, the investigations listed as correlating with this content do not. Coverage of electricity is stronger, and investigations accompany text. Although content on light is assessed at this level, there are no investigations on light. About five pages of student text are devoted to this.

*Coverage of Big Idea 7 is strong, with investigations and text.

B. Functionality & Suitability

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

1) Suitability

☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) Content quality

☐ Strong ☒ Moderate ☐ Little ☐ N/A

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community

3) Connections to Literacy

Note: may apply to either student or teacher editions

☐ Strong ☒ Moderate ☐ Little

- Employs a variety of reading levels and is grade/level appropriate
- Contains pre, during, post reading activities
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- Engaging text- does the text facilitate learning?
- Does understanding the text require having performed the imbedded activities?

4) Connections to Technology

☐ Strong ☐ Moderate ☒ Little

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data

5) Support for Diverse Learners

☐ Strong ☐ Moderate ☒ Little

- Provides support for ESL students
 - Provides support for differentiation of instruction in diverse classrooms
- Note: may apply only to teacher edition*

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

*We have some concerns with the accuracy of information and content quality. For example, an assessment question on air pressure promotes some misconceptions and makes no mention of gravity as a force acting on the paper.

*This basal contains pre, during and post reading activities. No vocabulary introduction is included.

*Writing connections involved are minimal. No mention of science journals or notebooks is included.

*A glossary is included at the end of each section, as well as

*Leveled readers and vocabulary cards are available for purchase.

*Online readers are listed as available, however we were not able to access

them. A test generator is available in the gratis materials, if you select it. The leveled readers are available on disc for purpose. The ELL Support Manual would need to be purchased separately. It says it contains a MP3 CD, however it was not available for our review.

C. Supports Inquiry and Skill Development

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

1) Promotes Inquiry, research and Application of Learning

☐ Strong ☒ Moderate ☐ Little

- Provides opportunities for inquiry and research that includes activities such as self-selecting topics, formulating authentic questions, gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, time lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.

Note: may apply to either teacher or student edition

2) Skill Development

☐ Strong ☒ Moderate ☐ Little

- Provides opportunities to make sense of data
- Provides opportunities for critical thinking and reasoning (analyze arguments, distinguish fact/opinion, recognize bias)
- Provides opportunities to examine a range of types of evidence
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

*Some investigations are strong in the use of inquiry and science process skills, especially with regard to life sciences. Not many opportunities are included for students to self select topics.

*Just a few graphs are included in the text, although there are several tables and charts.

D. Supports Best Practices of Teaching and Learning

☐ Strong Evidence
☐ Moderate Evidence

☐ Little or No Evidence

1) Engages Students

☐ Strong ☒ Moderate ☐ Little

- Includes content geared to the needs, interests, and abilities of students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction

☐ Strong ☒ Moderate ☐ Little

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

*Questioning is used moderately throughout the investigations.

*Assessment questions are listed at the end of each text chapter over vocabulary and comprehension of concepts. An open ended critical thinking question is included.

*A test generator is available in gratis materials. There is a KCCT Prep book with multiple choice and open response questions, divided into life, physical and earth science sections. At times the ORQs do not match content assessed at that grade level.

E. Has an Organization/ Format that Supports Learning and Teaching

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

1) Organizational Quality

☐ Strong ☒ Moderate ☐ Little

- Print and/or electronic materials present minimal barriers to learners
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that

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reinforce content standards.

- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size

Included media are durable, easy to use and have technical merit

- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text)

☐ Strong ☐ Moderate ☒ Little

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

*The manual is organized into sections of correlation with the Kentucky big ideas, investigations, and science reader support. The teacher's edition does not contain copies of student text pages, which would be almost necessary for teacher planning purposes.

*The inclusion of media and technology is minimal. No materials other than student text and the teacher's edition are considered as essential components.

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

☐ Strong Evidence
☐ Moderate Evidence
☐ Little or No Evidence

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

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	Copyright - 2009	Edition - 1st	Readability - 4.84 SSR Spache		
	Course - Elementary Science		Grade(s) - 5		
	Teacher Edition ISBN if applicable			9780618965762	

Overall Recommendation:

☒ **Recommended as Basal**

Overall Strengths, Weaknesses, Comments:

After review we found that amidst some initial confusion, focused study of the organizational format, the TE and Student Reader are strong resources as a basal. Granted some of the formatting is sketchy, the overall content is more than sufficient to support our content standards.

CRITERIA
This basal resource ...

A. Encompasses KY Content Standards & Grade Level Expectations

☒ **Strong Evidence**
☐ **Moderate Evidence**
☐ **Little or No Evidence**

☐ Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 7 Big Ideas of science to the following extent:

- | | |
|---|---|
| a) Structure and Transformation of Matter | <input checked="" type="checkbox"/> Strong <input type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
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| c) The Earth and the Universe | <input checked="" type="checkbox"/> Strong <input type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
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| e) Biological Change | <input checked="" type="checkbox"/> Strong <input type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
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| g) Interdependence | <input checked="" type="checkbox"/> Strong <input type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |

2) Addresses content-specific enduring understandings from the related Program of Studies standards.

☒ Strong ☐ Moderate ☐ Little ☐ N/A

3) Addresses content-specific skills and concepts from the related Program of Studies standards.

☒ Strong ☐ Moderate ☐ Little ☐ N/A

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4) **Content addressed is current, relevant and non-trivial** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

5) **Provides opportunities for critical thinking/reasoning** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

6) **Strengths, Weaknesses, Comments:**

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

Evidence of all content to be covered in the CCA 4.1 but addresses some of the concepts in a non-traditional way.

B. Functionality & Suitability

☒ **Strong Evidence**
☐ **Moderate Evidence**
☐ **Little or No Evidence**

1) **Suitability** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) **Content quality** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community

3) **Connections to Literacy** ☒ Strong ☐ Moderate ☐ Little
Note: may apply to either student or teacher editions

- Employs a variety of reading levels and is grade/level appropriate
- Contains pre, during, post reading activities
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- Engaging text- does the text facilitate learning?
- Does understanding the text require having performed the imbedded activities?

4) **Connections to Technology** ☐ Strong ☐ Moderate ☒ Little

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data

5) **Support for Diverse Learners** ☐ Strong ☐ Moderate ☒ Little

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- Provides support for ESL students
 - Provides support for differentiation of instruction in diverse classrooms
- Note: may apply only to teacher edition*

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Support for diverse learners is referenced in the TE but not available for review. There were no connections to technology that we could review, it is also referenced in the TE. Literary connections were strong, evident in the reader, assessments and extensions.

C. Supports Inquiry and Skill Development

☒ Strong Evidence
☐ Moderate Evidence
☐ Little or No Evidence

1) Promotes Inquiry, research and Application of Learning

☒ Strong ☐ Moderate ☐ Little

- Provides opportunities for inquiry and research that includes activities such as self-selecting topics, formulating authentic questions, gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, time lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.

Note: may apply to either teacher or student edition

2) Skill Development

☒ Strong ☐ Moderate ☐ Little

- Provides opportunities to make sense of data
- Provides opportunities for critical thinking and reasoning (analyze arguments, distinguish fact/opinion, recognize bias)
- Provides opportunities to examine a range of types of evidence
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

Investigations provide ample opportunities for skill development and inquiry. Extensions and assessments are authentic and relevant to CCA 4.1.

D. Supports Best Practices of Teaching and Learning

- ☒ Strong Evidence
☐ Moderate Evidence
☐ Little or No Evidence

1) Engages Students

☒ Strong ☐ Moderate ☐ Little

- Includes content geared to the needs, interests, and abilities of students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction

☒ Strong ☐ Moderate ☐ Little

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

Content is engaging and multiple opportunities for assessments. Can be confusing, requires prior examination of TE vs. student reader.

E. Has an Organization/ Format that Supports Learning and Teaching

- ☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

1) Organizational Quality

☐ Strong ☒ Moderate ☐ Little

- Print and/or electronic materials present minimal barriers to learners
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively

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- Uses grade-appropriate type size
- Included media are durable, easy to use and have technical merit
- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text)

☐ Strong ☐ Moderate ☒ Little

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The design of the TE is weak yet strong in content and engagement. Possible confusion with new implementation could be expected but easily overcome by deconstructing the format in the TE.

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

☒ **Strong Evidence**
☐ **Moderate Evidence**
☐ **Little or No Evidence**

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Although non-essential, the materials are helpful for diverse learners and planning.